

## CLAIMS

1. Method in low voltage net data transmission system for keeping the signal level of transmission constant on the net voltage rail or for example in wall outlet or in other corresponding connecting point or in sphere of influence by data transmission furnished with a supply cable, in which method the coupling means for making said signal voltage constant comprise: - operating voltage source ( $U_s$ ) for the signal amplifier (10), - signal amplifier (20), - low pass or band pass filter (40), network connecting unit (50), - supply cable, length ( $L_w$ ), - series impedance ( $Z_w$ ) - measuring and handling unit (60) of the transmitted signals for the storage location determination, - electronic unit (70) including sample and holding circuit (S&H) and control circuits (CONTROL) to produce control signal ( $U_{RC}$  and/or  $U_{LC}$ ) by means of ( $U_{LC}$ ) memory map or by means of other type signals, characterized in that in the method the feedback signal(s) is taken wired or wirelessly from one or some locations or sphere of influence of the actual apparatus or supply cable ( $L_w$ ) to the measuring and handling unit (60) of transmitting signals and further to the process unit (70) of sample and holding circuit (S&H) or of corresponding means and control means (CONTROL), by which unit the control signal ( $U_{RC}$ ) and/or  $U_{LC}$  is taken to steer the output signal or output voltage of blocks (10, 20, 40 and/or 50) in a depending way from load impedance ( $Z_{LOAD}$ ) and from the series impedance ( $Z_w$ ) of supply cable ( $L_w$ ) or possible from frequency, so that the amplitude ( $U_{LOAD}$ ) of transmission signal level ( $U_{LOAD}$ ) on voltage rail or some location of the supply cable or on wall outlet or on corresponding connecting point is constant or almost constant.
2. Method according to claim 1 characterized in that in the method a reference transmission signal ( $U_{OUT}$  constant/block 20) of brief duration, e.g. 40 ms, is sent and by means of feedback signals measured from different points on the transmitter and/or supply cable from a drawn up ( $U_{LC}$ ) memory map a control voltage is determined, by means which voltage the output level of signal amplifier (20) reaches at a predefined value so that the transmission signal ( $U_{LOAD}$ ) is in voltage rail or in wall outlet or in other corresponding connecting point constant or almost constant.
3. Method in low voltage net data transmission system for keeping the signal level of transmission constant on the net voltage rail or on some location of the supply cable or in sphere of influence of the rail or cable or in wall outlet or in other corresponding connecting point, in which method the coupling means for making said signal voltage constant comprise:

- operating voltage source ( $U_s$ ) for the signal amplifier (10), - signal amplifier (20), - low pass or band pass filter (40), input unit (50), - supply cable, length ( $L_w$ ), series impedance ( $Z_w$ ), - output unit (80) or unit adapted to the function, - ALC/AGC/ACC unit (90) to bring about control signals  $U_{ALC}$ ,  $U_{AGC}$  and/or  $U_{ACC}$ , whereby the output signals and control voltages of blocks (10, 20, 40 and/or 50) can be steered by control signal  $U_{ALC}$ ,  $U_{AGC}$  and/or  $U_{ACC}$ , characterized in that in the method the rail signal ( $U_{LOAD}$ ) or close to voltage rails influencing signal in transmission situation, or from one or some locations of the supply cable ( $L_w$ ), the feedback signal is taken wired or wireless by means of output unit (80) or by other way to (ALC/AGC/ACC) unit (90) to bring about control signals, by means of which the blocks (10, 20, 40 and/or 50) is steered from load impedance ( $Z_{LOAD}$ ) and supply cable, length ( $L_w$ ) and the series impedance ( $Z_w$ ) and possible frequency, by a depending way so that the amplitude of transmission amplitude level ( $U_{LOAD}$ ) is constant or almost constant on the voltage rail or some location of the supply cable or in wall outlet or in other corresponding connecting point.